

WHAT IS CLAIMED IS:

1. A network communication system adapted to deliver a media file to a user,
comprising:

a) a plurality of media servers configured as a redundant array of media
5 servers, each of said plurality of media servers communicating with at
least two levels of media file storage;

b) a metaswitch that communicates with said redundant array of media
servers and is adapted to receive communications from and transmit
communications to a user, said metaswitch including:

10 a stream redirector adapted to redirect a user to one of said
plurality of media servers within said redundant array of media servers
to access a media file stored therewithin;

15 a content collection that includes a listing of media files contained
within said at least two levels of media storage for said plurality of
media servers;

a server collection that includes a listing of said plurality of media
servers and a health indicia for each of said plurality of media servers;

20 a health monitor that is adapted to periodically collect
measurements related to predetermined performance metrics for said
plurality of media servers, and to update the health indicia for said
plurality of media servers within said server collection based on said
periodic collection of predetermined performance metrics; and

a popularity engine that is adapted to track user requests for media files that are stored within said at least two levels of media storage and to command repositioning of said media files based upon said tracking of user requests; and

5 a file mover that is adapted to respond to commands from said popularity engine and to reposition media files within said at least two levels of media storage;

c) wherein said stream redirector redirects a user to one of said at least two levels of media file storage for one of said plurality of media servers to
10 access a requested media file, based on input from said content collection and said server collection.

2. A network communication system according to claim 1, wherein said stream generator generates an .asx file to redirect a user.

3. A network communication system according to claim 1, wherein said metaswitch
15 further comprises a load balancer, said load balancer providing an alternative source of input to said stream redirector for redirection of users to one of said plurality of media servers when said health indicia contained within said server collection is non-determinative.

4. A network communication system according to claim 1, wherein said predetermined
20 metrics are selected from the group consisting of bandwidth usage, central processor unit usage, late reads of media files, and combinations thereof.

5. A network communication system according to claim 1, wherein said at least two levels of media file storage are selected from the group consisting of RAM storage, hard drive storage, and network attached storage.
6. A network communication system according to claim 1, wherein said listing of media files within said content collection is updated based on tracking of user requests by said popularity engine.
7. A network communication system according to claim 1, wherein said plurality of media servers are grouped into server pools based on media files associated therewith.
- 10 8. A network communication system according to claim 1, wherein said health monitor dampens adjustments to health indicia for said plurality of media servers by averaging performance metrics across successive measurements, thereby minimizing the impact of bandwidth spikes.
9. A network communication system according to claim 1, wherein said stream redirector provides a user with a hierarchy of levels of media file storage for access to media files.
- 15 10. A network communication system according to claim 1, wherein said popularity engine is further adapted to monitor file storage levels within said at least two levels of media storage and to command removal of media files therefrom based on preset threshold file levels.
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